

Amendments to the Specification

Please replace paragraph [0014] with the following amended paragraph:

5 [0014] FIG. 2 is a block diagram showing an image processing system according to a first embodiment of the invention. The image processing device 220 has several processing units 221, 223 and 225 for processing the image data, respectively. In this embodiment, the processing units 221, 223, and 225 may be, for example, a scaling processor, a color processor, and a halftone processor, respectively. In addition, the image
10 processing device 220 further has several buffer units 21, 23 and 25, each of which is disposed between two processing units and serially coupled to the two processing units. For example, the buffer unit 23 is coupled to the processing units 221 and 223. The buffer unit 23 is for temporarily storing the image data outputted from the previous stage of processing unit 221, and the stored image data may be provided to the next stage of
15 processing unit 223 for the next stage of image processing. The buffer units 21, 23 and 25 may be memories or registers, such as SRAMs. In the image processing device 220 of the invention, disposing the buffer unit between two stages of processing unit solves the problem of incapable of performing the next stage of image processing ~~[[after]]~~ before the previous stage of processing unit has finished the image processing in each processing
20 unit. As long as the partial image data has been stored into the buffer unit, the next stage of processing unit can load the image data from the buffer unit for the next stage of image processing. Thus, the time required by the image processing procedures of the image processing device 220 may be greatly shortened. In addition, unlike the conventional memory capacity, the buffer unit can have the smaller memory capacity compared to the
25 conventional art. Thus, the hardware cost may be greatly reduced. Furthermore, the digital data outputted from each processing unit in the image processing device 220 is buffered by the buffer unit and then transferred to the next processing unit for processing. Because the data does not have to be inputted to or outputted from the external memory,

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the image data processing speed is increased, and the efficiency of the processing unit is enhanced.